

LISTING OF CLAIMS

1. (currently amended) An ink-jet ink, comprising

a) a liquid vehicle; and

b) a polymer-dispersed pigment dispersed in the liquid vehicle, said polymer-dispersed pigment including a pigment encapsulated with a polymer, said polymer being a polymerization product of at least a first monomer having a hydrophilic group, and a second monomer having a hydrophobic group, said polymer including styrene-vinylsulfonic acid copolymer, styrene-butyl acrylate-methacrylic acid-vinylsulfonic acid copolymer, styrene-trifluoroacrylic acid-vinylsulfonic acid copolymer, styrene- α -(trifluoromethyl)acrylic acid-vinylsulfonic acid copolymer, or styrene-trifluoroacrylic acid copolymer, wherein the polymer-dispersed pigment is stable in the liquid vehicle at a pH from about 5.5 to about 8.5.

2. (currently amended) An ink-jet ink as in claim 1, wherein the hydrophilic group is selected from the group consisting of ~~sulfonic acid~~, fluoric acids, α - and/or β -fluorocarboxylic acids, and combinations thereof.

3. (currently amended) An ink-jet ink as in claim ~~2~~ 1, wherein the hydrophilic group is a sulfonic acid.

4-5. (canceled).

6. (original) An ink-jet ink as in claim 1, wherein the first monomer is used to form from about 10 wt% to about 50 wt% of the polymer.

7-9. (canceled).

10. (original) An ink-jet ink as in claim 1, wherein the second monomer is used to form from about 25 wt% to about 80 wt% of the polymer.

11. (canceled).

12. (currently amended) An ink-jet ink as in claim 1, wherein the polymer is a the styrene-vinylsulfonic acid copolymer.

13. (currently amended) An ink-jet ink as in claim 1, wherein the polymer is a the styrene-butyl acrylate-methacrylic acid-vinylsulfonic acid copolymer.

14. (currently amended) An ink-jet ink as in claim 1, wherein the polymer is a the styrene-trifluoroacrylic acid-vinylsulfonic acid copolymer.

15. (currently amended) An ink-jet ink as in claim 1, wherein the polymer is a the styrene- α -(trifluoromethyl)acrylic acid-vinylsulfonic acid copolymer.

16. (currently amended) An ink-jet ink as in claim 1, wherein the polymer is a the styrene-trifluoro acrylic acid copolymer.

17. (original) An ink-jet ink as in claim 1, wherein the polymer-dispersed pigment is stable in the liquid vehicle at a pH from about 6.5 to about 7.5.

18. (currently amended) A system for printing an image, comprising:

a) a substrate; and

b) a first ink-jet pen containing a first ink-jet ink, said first ink-jet ink pen configured for printing the first ink-jet ink on the substrate, said first ink-jet ink including a first polymer-dispersed pigment dispersed in a first liquid vehicle, said polymer-dispersed pigment having a first pigment encapsulated with a first polymer, said polymer being a polymerization product of at least a first monomer having a hydrophilic group and a second monomer having a hydrophobic group, said polymer selected from the group consisting of styrene-vinylsulfonic acid copolymer, styrene-butyl acrylate-methacrylic acid-vinylsulfonic acid copolymer, styrene-trifluoroacrylic acid-vinylsulfonic acid copolymer, styrene- α -(trifluoromethyl)acrylic acid-vinylsulfonic acid copolymer, and styrene-trifluoroacrylic acid copolymer, wherein the polymer-dispersed pigment is stable in the liquid vehicle at a pH from about 5.5 to about 8.5.

19. (currently amended) A system as in claim 18, wherein the hydrophilic group is selected from the group consisting of ~~sulfonic acid~~, fluoric acids, α - and/or β -fluorocarboxylic acids, and combinations thereof.

20. (currently amended) A system as in claim ~~19~~ 18, wherein the hydrophilic group is a sulfonic acid.

21. (canceled).

22. (original) A system as in claim 18, wherein the first monomer is used to form from about 10 wt% to about 50 wt% of the polymer.

23. (canceled).

24. (original) A system as in claim 18, wherein the second monomer is used to form from about 25 wt% to about 80 wt% of the polymer.

25-26. (canceled).

27. (original) A system as in claim 18, further comprising a second ink-jet pen containing a second ink-jet fluid, said second ink-jet fluid including a cationic component configured for reduced bleed when printed adjacent to the first ink-jet ink.

28. (original) The system as in claim 27, wherein said second ink-jet fluid includes a pigment.

29. (original) The system as in claim 18, wherein the first polymer-dispersed pigment is stable in the first liquid vehicle at a pH from about 6.5 to about 7.5.

30. (currently amended) A method of printing an image, comprising ink-jetting an ink-jet ink onto a media substrate, said ink-jet ink including:

a) a liquid vehicle; and

b) a polymer-dispersed pigment dispersed in the liquid vehicle, said polymer-dispersed pigment including a pigment encapsulated with a polymer, said polymer being a polymerization product of at least a first monomer having a hydrophilic group, and a second monomer having a hydrophobic group, said polymer selected from the group consisting of styrene-vinylsulfonic acid copolymer, styrene-butyl acrylate-methacrylic acid-vinylsulfonic acid copolymer, styrene-trifluoroacrylic acid-vinylsulfonic acid copolymer, styrene- α -(trifluoromethyl)acrylic acid-vinylsulfonic acid copolymer, and styrene-trifluoroacrylic acid copolymer, wherein the polymer-dispersed pigment is stable in the liquid vehicle at a pH of from about 5.5 to about 8.5.

31. (canceled)

32. (original) A method as in claim 30, wherein the first monomer is used to form from about 10 wt% to about 50 wt% of the polymer.

33. (canceled) A method as in claim 30, ~~wherein the polymer is selected from the group consisting of styrene-vinylsulfonic acid copolymer, styrene-butyl acrylate-methacrylic acid-vinylsulfonic acid copolymer, styrene-trifluoroacrylic acid-vinylsulfonic acid copolymer, styrene- α -(trifluoromethyl)acrylic acid-vinylsulfonic acid copolymer, and styrene-trifluoroacrylic acid copolymer~~ wherein the second monomer is used to form from about 25 wt% to about 80 wt% of the polymer.

34. (original) The method as in claim 30, further comprising ink-jetting a second ink-jet fluid, said second ink-jet fluid including a cationic component configured for reduced bleed when printed adjacent to the first ink-jet ink.

35. (original) The method as in claim 34, wherein the second ink-jet fluid includes a cationically-dispersed pigment.

36. (original) The method as in claim 30, wherein the polymer-dispersed pigment is stable in the liquid vehicle at a pH from about 6.5 to about 7.5.

37. (new) An ink-jet ink, comprising

a) a liquid vehicle; and

b) a polymer-dispersed pigment dispersed in the liquid vehicle, said polymer-dispersed pigment including a pigment encapsulated with a polymer, said polymer being a polymerization product of at least a first monomer having a hydrophilic group selected from the group consisting of fluoric acids, α -fluorocarboxylic acids, β -fluorocarboxylic acids, and combinations thereof, and a second monomer having a hydrophobic group, wherein the polymer-dispersed pigment is stable in the liquid vehicle at a pH from about 5.5 to about 8.5.

38. (new) An ink-jet ink as in claim 37, wherein the first monomer is used to form from about 10 wt% to about 50 wt% of the polymer.

39. (new) An ink-jet ink as in claim 37, wherein the hydrophobic group is selected from the group consisting of aromatic, aliphatic, alicyclic, heterocyclic, and combinations thereof.

40. (new) An ink-jet ink as in claim 37, wherein the hydrophobic group is phenyl.

41. (new) An ink-jet ink as in claim 37, wherein the second monomer is selected from the group consisting of styrene, cinnamic acid, 4-alkylstyrene, and combinations thereof.

42. (new) An ink-jet ink as in claim 37, wherein the second monomer is used to form from about 25 wt% to about 80 wt% of the polymer.

43. (new) An ink-jet ink as in claim 37, wherein the polymer-dispersed pigment is stable in the liquid vehicle at a pH from about 6.5 to about 7.5.